AMENDED CLAIMS IN CLEAN FORM

IN THE CLAIMS:

1. (Once amended) A computer-implemented method for communication and cooperative task completion among a plurality of distributed electronic agents, comprising the acts of:

registering a description of each active client agent's functional capabilities as corresponding registered functional capabilities, using an expandable, platform-independent, inter-agent language;

receiving a request for service as a base goal in the inter-agent language, in the form of an arbitrarily complex goal expression;

dynamically interpreting the arbitrarily complex goal expression, said act of interpreting further comprising:

generating one or more sub-goals expressed in the inter-agent language;

constructing a goal satisfaction plan that includes said one or more sub-goals; and

dispatching each of the sub-goals to a selected client agent for performance, based on a match between the sub-goal being dispatched and the registered functional capabilities of the selected client agent.

2. (Once amended) A computer-implemented method as recited in claim 1, further including the following acts of:

receiving a new request for service as a base goal using the inter-agent language, in the form of another arbitrarily complex goal expression, from at least one of the selected client agents in response to the sub-goal dispatched to said agent; and

recursively applying the step of dynamically interpreting the arbitrarily complex goal expression in order to perform the new request for service.

3. (Once amended) A computer-implemented method as recited in claim 2 wherein the act of registering a specific agent further includes:

invoking the specific agent in order to activate the specific agent;

instantiating an instance of the specific agent; and

transmitting the new agent profile from the specific agent to a facilitator agent in response to the instantiation of the specific agent.

48. (Once amended) An Interagent Communication Language (ICL) providing a basis for facilitated cooperative task completion within a distributed computing environment having a facilitator agent and a plurality of autonomous service-providing electronic agents, wherein:

the ICL having one or more features from a set of features comprising:

enabling agents to perform queries of other agents;

enabling agents to exchange information with other agents; and

enabling agents to set triggers within other agents; and

the ICL having a syntax supporting compound goal expressions wherein said compound goal expressions are such that goals within a single request provided according to the ICL syntax may be coupled by one or more operators from a set of operators comprising:

a conjunctive operator;

a conditional execution operator; and

a parallel disjunctive operator that indicates that disjunct goals are to be performed by different agents.

84. (Once amended) A computer architecture as recited in claim 71 wherein a planning component of the facilitating engine are distributed across at least two computer processes.

85. (Once amended) A computer architecture as recited in claim 71 wherein an execution component of the facilitating engine is distributed across at least two computer processes.

86. (Once amended) A data wave carrier providing a transport mechanism for information communication in a distributed computing environment having at least one facilitator agent and at least one active client agent, wherein said at least one facilitator agent is operable to construct a goal satisfaction plan for satisfying one or more requests for service from said at least one active client agent, the data wave carrier comprising a signal

representation of an inter-agent language description of an active client agent's functional capabilities.

87. (Once amended) A data wave carrier as recited in claim 86, the data wave carrier further comprising a corresponding signal representation of said one or more requests for service in the inter-agent language from a first agent to a second agent.

88. (Once amended) A data wave carrier as recited in claim 86, the data wave carrier further comprising a signal representation of a goal dispatched to an agent for performance from a facilitator agent.